



Substitute Senate Bill No. 957

Public Act No. 19-128

AN ACT CONCERNING COMPUTER SCIENCE INSTRUCTION IN PUBLIC SCHOOLS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subsection (a) of section 10-16b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(a) In the public schools the program of instruction offered shall include at least the following subject matter, as taught by legally qualified teachers, the arts; career education; consumer education; health and safety, including, but not limited to, human growth and development, nutrition, first aid, including cardiopulmonary resuscitation training in accordance with the provisions of section 10-16qq, disease prevention and cancer awareness, including, but not limited to, age and developmentally appropriate instruction in performing self-examinations for the purposes of screening for breast cancer and testicular cancer, community and consumer health, physical, mental and emotional health, including youth suicide prevention, substance abuse prevention, including instruction relating to opioid use and related disorders, safety, which shall include the safe use of social media, as defined in section 9-601, and may include the dangers of gang membership, and accident prevention; language arts,

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including reading, writing, grammar, speaking and spelling; mathematics; physical education; science, which may include the climate change curriculum described in subsection (d) of this section; social studies, including, but not limited to, citizenship, economics, geography, government, history and Holocaust and genocide education and awareness in accordance with the provisions of section 10-18f; computer science, including, but not limited to, computer programming instruction; and in addition, on at least the secondary level, one or more world languages and vocational education. For purposes of this subsection, world languages shall include American Sign Language, provided such subject matter is taught by a qualified instructor under the supervision of a teacher who holds a certificate issued by the State Board of Education. For purposes of this subsection, the "arts" means any form of visual or performing arts, which may include, but not be limited to, dance, music, art and theatre.

Sec. 2. Subsection (d) of section 10-145a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2020*):

(d) On and after July 1, [1998] 2020, any [candidate in a] program of teacher preparation leading to professional certification shall [complete a] include, as part of the curriculum, instruction in computer science, and [other] instruction in information technology skills [component of such program,] as applied to student learning and classroom instruction [, communications and data management] that are grade-level and subject area appropriate.

Sec. 3. Section 10-155d of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(a) The Office of Higher Education shall encourage and support experimentation and research in the preparation of teachers for public elementary and secondary schools. To help fulfill the purposes of this

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section, the Office of Higher Education shall appoint an advisory council composed of qualified professionals which shall render assistance and advice to the office. In carrying out its activities pursuant to this section, the office shall consult with the State Board of Education and such other agencies as it deems appropriate to assure coordination of all activities of the state relating to the preparation of teachers for public elementary and secondary schools.

(b) The Office of Higher Education, with the approval of the Commissioner of Education, shall expand, within available appropriations, participation in its summer alternate route to certification program and its weekend and evening alternate route to certification program. The office shall expand the weekend and evening program for participants seeking certification in a subject shortage area pursuant to section 10-8b. The office, in collaboration with the Department of Education, shall develop (1) a regional alternate route to certification program targeted to the subject shortage areas, [and] (2) an alternate route to certification program for former teachers whose certificates have expired and who are interested in resuming their teaching careers, and (3) an alternate route to certification program targeted for computer science teachers.

(c) The Office of Higher Education, in consultation with the Department of Education, shall develop alternate route to certification programs for (1) school administrators and superintendents, [and] (2) early childhood education teachers, and (3) computer science teachers. The programs shall include mentored apprenticeships and criteria for admission to the programs.

Sec. 4. Subsection (e) of section 10-145d of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(e) [The] Not later than July 1, 2020, the State Board of Education

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shall adopt regulations, in accordance with chapter 54, to provide standards for the certification of computer science teachers. Such regulations shall create a computer science endorsement and make provision for certification requirements to be met by either (1) completion of prescribed courses of study, or (2) such other experience as the state board shall deem appropriate.

Sec. 5. (*Effective from passage*) Not later than January 1, 2020, the State Board of Education shall approve and adopt a subject area assessment for computer science for purposes of certification pursuant to chapter 166 of the general statutes.

Sec. 6. Section 10-145*l* of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(a) On and after July 1, 2010, the State Board of Education shall allow an applicant for certification to teach in a subject shortage area pursuant to section 10-8b or a certified employee seeking to teach in such a subject shortage area to substitute achievement of [an excellent] a satisfactory score, as determined by the State Board of Education, on any appropriate State Board of Education approved subject area assessment for the subject area requirements for certification pursuant to section 10-145f.

(b) On and after July 1, 2020, the State Board of Education shall allow an applicant for certification to teach computer science, or a certified employee seeking to teach computer science, to substitute achievement of a satisfactory score, as determined by the State Board of Education, on the appropriate State Board of Education approved subject area assessment for the subject area requirements for certification pursuant to section 10-145f.

Sec. 7. (NEW) (*Effective July 1, 2019*) Not later than July 1, 2020, the Department of Economic and Community Development may, within

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available appropriations, develop a model internship program for use by companies and businesses in the state. The model internship program shall assist such companies and businesses in providing students attending public and independent institutions of higher education in the state with internship opportunities in the fields of technology and advanced manufacturing. The department may make such model internship program available on its Internet web site.

Sec. 8. Section 31-11ff of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(a) For purposes of this section:

(1) "Early college high school" means a school in which persons who are underrepresented in higher education, including, but not limited to, low-income youth, first-generation college students, English language learners and minority students, may simultaneously earn, tuition free, a high school diploma and an associate degree or up to two years of credit toward a bachelor's degree;

(2) "Middle college program" means a collaboration between a school district's high schools and a regional-community technical college or a four-year college or university where a student may (A) take core high school courses or courses for which college or university-level credit may be given, and (B) attribute all such credits earned toward a program of higher learning at an institution of higher education in which such student enrolls upon graduation from the middle college program; and

(3) "Connecticut Early College Opportunity program" or "CT-ECO" means a collaboration between a school district's high schools, a local community college and a company or business entity where a student may earn an industry-recognized, two-year postsecondary degree in addition to a high school diploma.

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(b) The Connecticut Employment and Training Commission shall develop, in collaboration with the Connecticut state colleges and universities, Department of Education, and regional work force development boards established pursuant to section 31-3j, a state-wide plan for implementing, expanding or improving upon career certificate programs established under section 10-20a, middle college programs, early college high school programs and Connecticut Early College Opportunity programs to provide education, training and placement in jobs available in the manufacturing, health care, construction, green, science, technology, computer science, engineering and mathematics industries and other emerging sectors of the state's economy. Such plan shall include a proposal to fund such programs.

Sec. 9. (NEW) (*Effective from passage*) The Department of Economic and Community Development, in consultation with the Labor Department and Office of Higher Education, may, within available appropriations:

(1) Identify (A) anticipated areas of job growth in the state over the next five and ten years, state-wide and by region, (B) existing or projected needs for certificate programs, degree programs and short-term and long-term noncredit training programs to support areas of job growth, (C) the certificate programs, degree programs and noncredit training programs in the state that are most in demand by employers and students, the percentage of graduates of such programs who are employed in the state two years after graduation and the fields and industries in which such graduates are employed, and (D) the capacity for growth in high-demand academic programs offered by institutions of higher education in the state;

(2) Coordinate with state agencies and quasi-public agencies to prioritize and align state resources to meet the existing and future talent needs of the state, identified pursuant to subdivision (1) of this section; and

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(3) Coordinate with municipal leaders to (A) share the results of the analysis performed under subdivision (1) of this section with employers, public and independent institutions of higher education in the state and other stakeholders, and (B) develop a program to award grants to support evidence-based solutions to cultivate, attract, hire and retain workers in high-demand fields and industries. Such program may include, but not be limited to, internship programs, education programs, incentives to attract mid-career workers and fellowship programs to attract and retain recent graduates.

Sec. 10. (NEW) (*Effective July 1, 2019*) There is established an account to be known as the "computer science education account", which shall be a separate, nonlapsing account within the General Fund. The account shall contain any moneys required or permitted by law to be deposited in the account and any funds received from any public or private contributions, gifts, grants, donations, bequests or devises to the account. The Department of Education may make expenditures from the account to support curriculum development, teacher professional development, capacity development for school districts, and other programs for the purposes of supporting computer science education.

Sec. 11. Subsection (j) of section 10-221a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

(j) For the school year commencing July 1, 2012, and each school year thereafter, each local and regional board of education shall create a student success plan for each student enrolled in a public school, beginning in grade six. Such student success plan shall include a student's career and academic choices in grades six to twelve, inclusive. On and after July 1, 2020, in creating such student success plans, consideration shall be given to career and academic choices in computer science, science, technology, engineering and mathematics.

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